



# AIR FLOW CONTROL FLOW CONTROL VALVES

**PRODUCT CATALOG** 

ROSS



845/3-4 หมู่ 3 ถ.เทพารักษ์ ต.เทพารักษ์ อ.เมือง จ.สมุทรปราการ 102070

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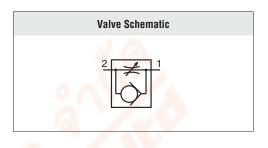
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# Flow Control Valves 19 & 11 Series Product Overview



#### **Flow Control Function**

Flow control valves provide high air flow rates into a cylinder, and precisely controlled flow rates out of the cylinder. The adjustable flow can range from near zero to full flow.



Selecting flow control valves with sufficient flow capacity is important so that they do not become the limiting factor in the cylinder control system. Full flow capacity should match that of the control valve to keep cylinder motion smooth and predictable in both directions.

Low-Profile		Heavy	-Duty	Right-Angle		
with Slot Adjustment	with Knob Adjustment	High-Capacity	Low-Profile High-Capacity	with Slot Adjustment	with Knob Adjustment	
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VALVE FEATURES						
Poppet Design	Dirt-tolerant poppet design; available in alternate materials for extreme temperature applications					
High Flow	High flow capacity in free-flow direction (port 1 to 2), same high flow available in reverse direction					
Visible Indication	Low-Profile High-Capacity valves – Brass stem gives visible indication of flow rate in controlled direction (port 2 to 1)					
Positive Locking	Low-Profile High-Capacity valves – Prevents change of adjustment knob due to vibration or tampering					
Adjustable Flow	Knob hand or skrewdriver slot adjustmen to control flow					

# **Specifications**



	Function			Flow Control		
GENERAL	Construction Design			Poppet		
	Actuation			Pneumatic		
		Туре	Low-Profile High-Capacity Low-Profile High-Capacity	Inline		
	Manufian		Right-Angle	Screws directly into cylinder port		
	Mounting		Low-Profile	Any, preferably vertical		
		Orientation	High-Capacity Low-Profile High-Capacity	Inline, Offset		
			Right-Angle	Inlet port can be swiveled 360° for optimum placement		
	Connection			Threaded; G, NPT		
	Minimum Operation Fr	equency		Once per month, to ensure proper function		
	Temperature	Ambient/Media	Low-Profile	41° to 140°F (5° to 60°C)		
			High-Capacity Low-Profile High-Capacity	-40° to 175°F (-40° to 80°C)		
				For temperatures below 40°F (4°C) air must be free of water vapor to preven formation of ice.		
				For temperatures below -40°F (-40°C), consult ROSS.		
OPERATING			Right-Angle	40° to 175°F (4° to 80°C)		
CONDITIONS	Flow Media		0.00	Filtered air		
		Low-Profile	Supply Pressure	217 psi (14.9 bar)		
		Low-Frome	Maximum Pressure	150 psi (10.3 bar)		
	Operating Pressure	High-Capacity Low-Profile High- Right-Angle	Capacity	5 to 150 psig (0.3 to 10 bar)		
CONSTRUCTION MATERIAL	Valve Body	Low-Profile High-Capacity Low-Profile High-	Capacity	Cast Aluminum		
		Right-Angle		Nickel-plated brass body, black anodized aluminum swivel		
	Poppet			Acetal and Stainless Steel		
	Spring	Right-Angle	1.	Stainless Steel		
	Seals		1.257	Buna-N		

IMPORTANT NOTE: Please read carefully and thoroughly all of the CAUTIONS, WARNINGS on the inside back cover

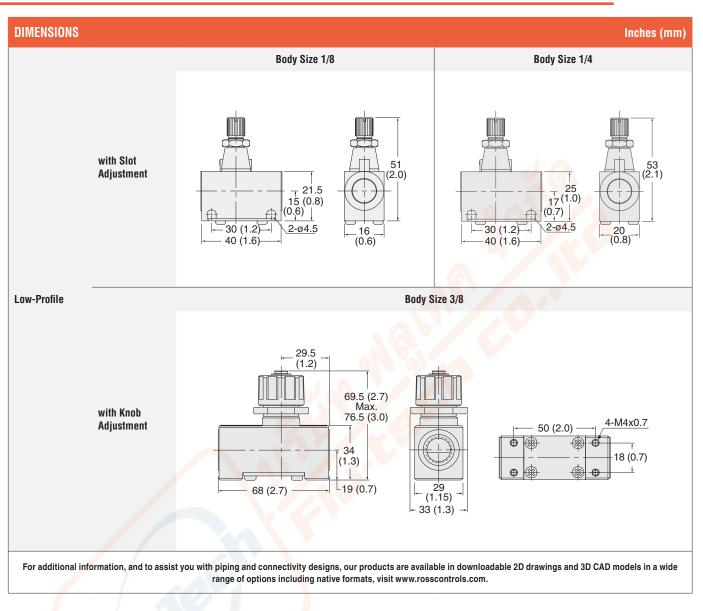
PRODUCT CREDENTIALS						
EAC Conformity Declaration	Canadian Registration Number (CRN)					
EAC	Available for appropriately tested valves					

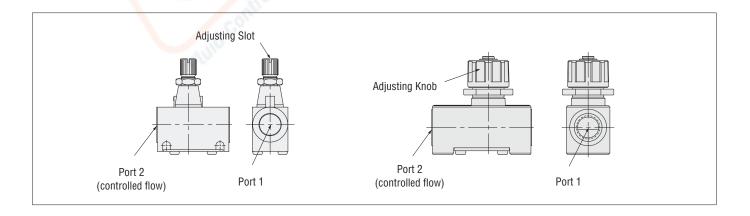
# **Ordering Information**

FLOW CONT	ROL VALVES							2-Way Valve
Valve Style		Size			Valve Mod	Flow $C_{v}$	Weight	
		Port 1	Port 2	Body	G Thread	NPT Thread	1-2	lb (kg)
	with Slot	1/8	1/8	1/8	D1968F1004	1968F1004	0.5	0.1 (0.1)
	Adjustment	1/4	1/4	1/4	D1968F2004	1968F2004	0.5	0.1 (0.1)
Low-Profile		1/4	1/4	3/8	D1968F2007	1968F2007	2.3	0.4 (0.2)
	with Knob Adjustment	3/8	3/8	3/8	D1968F3007	1968F3007	2.3	0.4 (0.2)
	Augustinoitt	1/2	1/2	3/8	D1968F4007	1968F4007	2.3	0.4 (0.2)
	1/4		1/4	3/8	D1968B2007	1968B2007	2.3	0.5 (0.2)
		3/8	3/8	3/8	D1968B3007	1968B3007	2.6	0.5 (0.2)
		1/2	1/2	3/8	D1968B4017	1968B4017	2.6	0.5 (0.2)
		1/2	1/2	3/4	D1968B4007	1968B4007	7.5	0.8 (0.4)
		3/4	3/4	3/4	D1968B5007	1968B5007	8.3	0.8 (0.4)
		1	1	3/4	D1968B6017	1968B6017	8.3	0.8 (0.4)
High-Capacity		1	1	1-1/4	D1968B6007	1968B6007	17	2.2 (1.0)
		1-1/4	1-1/4	1-1/4	D1968B70 <mark>07</mark>	1968B7007	22	2.2 (1.0)
		1-1/2	1-1/2	1-1/4	D1968B8017	1968B8017	22	2.2 (1.0)
		1-1/2	1-1/2	2	D1968B8007	1968B8007	50	4.3 (1.9)
		2	2	2	D1968B9007	1968B9007	50	4.3 (1.9)
		2-1/2	2-1/2	2	D1968B9017	1968B9017	50	4.3 (1.9)
		1/2	1/2	3/4	D1968E4007	1968E4007	7.5	0.8 (0.4)
Low-Profile High-Capacity		3/4	3/4	3/4	D1968E5007	1968E5007	8.3	0.8 (0.4)
		1	1	1-1/4	D1968E6007	1968E6007	17	2.1 (1.0)
		1-1/2	1-1/2	1-1/4	D1968E7007	1968E7007	22	2.1 (1.0)

Valve Style		Connection	Size		Valve Model Number		Flow C <sub>v</sub>	Weight Ib (kg)	
		Connection	Port 1 Port 2 Body		G Thread NPT Thread				
W		Threaded Inlet	1/8	1/8	1/4	D1968A1008	1968A1008	0.3	0.06 (0.03)
			1/4	1/4	1/4	D1968A2008	1968A2008	0.6	0.12 (0.05)
			3/8	3/8	3/8	D1968A3008	1968A3008	1.9	0.20 (0.09)
	with Slot		1/2	1/2	3/8	D1968A4008	1968A4008	2.8	0.34 (0.15)
	Adjustment	Tube Fitting	1/8	1/8	1/4	_	1968A1108#	0.3	0.06 (0.03)
			1/4	1/4	1/4	_	1968A2108	0.6	0.12 (0.05)
			3/8	3/8	3/8	D1968A3108	1968A3108	1.9	0.20 (0.09)
			1/2	1/2	3/8	_	_	2.8	0.34 (0.15)
	with Knob Adjustment	Threaded Inlet	1/8	1/8	1/4	_	1968A1008	0.3	0.08 (0.04)
			1/4	1/4	1/4	D1968A2018	1968A2008	0.6	0.14 (0.06)
			3/8	3/8	3/8	D1968A3018	1968A3008	1.9	0.20 (0.09)
			1/2	1/2	3/8	D1968A4018	1968A4008	2.8	0.34 (0.15)
		Tube Fitting	1/8	1/8	1/4	D1968A1118#	1968A1108#	0.3	0.08 (0.04)
			1/4	1/4	1/4	D1968A2118	1968A2108	0.6	0.14 (0.06)
			3/8	3/8	3/8	D1968A3118	1968A3108	1.9	0.20 (0.09)
			1/2	1/2	3/8	_	_	2.8	0.34 (0.15)

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DIMENSIONS		Inches (mm)						
	Body Size 3/8	Body Size 3/4						
	5.19 (132) 1.75 (44) 1.31 (33)	5.69 (145) 2.20 (56) (56) (56) (56) (56) (56) (1.75) (44)						
High-Capacity	Body Size 1-1/4	Body Size 2						
	7.07 (180) 5.00 (127) 5.00 (127) 5.00 (127) 5.00 (127)	$\begin{array}{c} 00.41 (10) \text{ dia.} \\ 2 \\ 0 \\ 0 \\ 2.25 \\ (57) \\ 6.80 (173) \\ (63) \end{array} $						
For additional information	For additional information, and to assist you with piping and connectivity designs, our products are available in downloadable 2D drawings and 3D CAD models in a wide range of options including native formats, visit www.rosscontrols.com.							

